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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/807,539

03/23/2004

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9319S-000699

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27572 7590 07/17/2007  
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EXAMINER

LEWIS, DAVID LEE

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

07/17/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                    |  |
|------------------------------|--------------------------------------|------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/807,539 | <b>Applicant(s)</b><br>OTA, YUSUKE |  |
|                              | <b>Examiner</b><br>David L. Lewis    | <b>Art Unit</b><br>2629            |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 July 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                           |                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                               | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                      | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/27/06, 3/23/04</u> . | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. **Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Zehner et al. (7012600).**

**As in claim 1, Okabe et al. teaches of a data driver for driving data lines of an electro-optic device, figures 1-3 and 7,**

comprising: a state setting register, to which are input setting data for one of multiple states, which include a display ON state, in which drive power is generated and display operation is conducted using drive signals based on display data, a display OFF state, in which drive power is generated but display operation using the drive signals is not conducted, and a sleep state, in which drive power is not generated and display operation using the drive signals is not conducted, **figure 3 item 124;**

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a state setting circuit, which effects transition to any of the multiple states in accordance with the setting data input to the state setting register and outputs a drive control signal associated with a state of a transition destination, **figure 3 item 128;**

and a drive circuit, which drives the data lines with the drive power based on the drive control signal, **figure 2 item 24, figure 7 item 200;**

wherein the state setting circuit effects transition from the sleep state to the display OFF state when first setting data are input to the state setting register during the sleep state, and the state setting circuit effects transition from the sleep state to the display OFF state, then effects transition from the display OFF state to the display ON state when second setting data are input to the state setting register and is followed by input of the first setting data to the state setting register during the sleep state, **column 16 lines 60-67, column 17 lines 1-30.**

**As in claim 2, Okabe et al. teaches of** further comprising: a counter, which counts frame pulses having a scan cycle of scan lines of the electro-optic device, wherein, when the second setting data is input to the state setting register and is followed by input of the first setting data to the state setting register during the sleep state, if the state setting circuit effects transition from the sleep state to the display OFF state, then starts the counting by the counter, and the count value reaches a predetermined number, the state setting circuit effects transition from the display OFF state to the display ON state, **column 16 lines 60-67, column 17 lines 1-30.**

**As in claim 3, Okabe et al. teaches of** wherein the predetermined number is a product of  $f$  and  $Y$ , wherein,  $f$  is a frequency in Hertz of the frame pulses, and  $Y$  is a period in milliseconds for a power circuit for generating the drive power to stabilize after starting up, or for an oscillating circuit that outputs a clock for generating the frame pulses to stabilize after starting oscillation operation, **column 16 lines 60-67, column 17 lines 1-30.**

**As in claim 4, Okabe et al. teaches of** a data driver for driving data lines of an electro-optic device, **figures 1-3 and 7,**

comprising: a state setting register, to which are input setting data for one of multiple states, which include a display ON state, in which drive power is generated and display operation is conducted using drive signals based on display data, a display OFF state, in which drive power is generated but display operation using the drive signals is not conducted, and a sleep state, in which drive power is not generated and display operation using the drive signals is not conducted, **figure 3 item 124;**

a state setting circuit, which effects transition to any of the multiple states in accordance with the setting data input to the state setting register and outputs a drive control signal associated with a state of a transition destination, **figure 3 item 128;**

and a drive circuit, which drives the data lines with the drive power based on the drive control signal, **figure 2 item 24, figure 7 item 200;**

wherein the state setting circuit effects transition from the sleep state to the display OFF state when first setting data are input to the state setting register during the sleep state, and the state setting circuit effects transition from the sleep state to the display OFF state, then effects transition from the display OFF state to the display ON state when third setting data are input to the state setting register during the sleep state, **column 16 lines 60-67, column 17 lines 1-30.**

**As in claim 5, Okabe et al. teaches of** wherein the state setting circuit effects transition from the display OFF state to the sleep state when fourth setting data is input to the state setting register during the display OFF state, and the state setting circuit effects transition from the display ON state to the display OFF state, then effects transition from the display OFF state to the sleep state when the fourth setting data are input to the state setting register during the display ON state, **column 16 lines 60-67, column 17 lines 1-30.**

**As in claim 6, Okabe et al. teaches of** a data driver for driving data lines of an electro-optic device,

comprising: a state setting register, to which are input setting data for one of multiple states, which include a display ON state, in which drive power is generated and display operation is conducted using drive signals based on display data, a display OFF state, in which drive power is generated but display operation using the drive signals is not conducted, and a sleep state, in which drive power is not generated and display operation using the drive signals is not conducted, **figure 3 item 124;**

a state setting circuit, which effects transition to any of the multiple states in accordance with the setting data input to the state setting register and outputs a drive control signal associated with a state of a transition destination **figure 3 item 128**;

and a drive circuit, which drives the data lines with the drive power based on the drive control signal, **figure 2 item 24, figure 7 item 200**;

wherein the state setting circuit effects transition from the display OFF state to the sleep state when fourth setting data are input to the state setting register during the display OFF state, and the state setting circuit effects transition from the display ON state to the display OFF state, then effects transition from the display OFF state to the sleep state when fourth setting data are input to the state setting register during the display ON state, **column 16 lines 60-67, column 17 lines 1-30**.

**As in claim 7, Okabe et al. teaches of an electro-optic device, comprising: a plurality of scan lines; a plurality of data lines; a plurality of pixels, which are coupled to the plurality of scan lines and the plurality of data lines; a scan driver for scanning the plurality of scan lines; and the data driver according to claim 1 for driving the plurality of data lines, column 16 lines 60-67, column 17 lines 1-30.**

**As in claim 8, Okabe et al. teaches of an** electro-optic device, comprising: a display panel, which includes a plurality of scan lines, a plurality of data lines, and a plurality of pixels coupled to the plurality of scan lines and the plurality of data lines; a scan driver for scanning the plurality of scan lines; and the data driver according to claim 1 for driving the plurality of data lines, **column 16 lines 60-67, column 17 lines 1-30.**

**As in claim 9, Okabe et al. teaches of** wherein the state setting circuit effects transition from the display OFF state to the sleep state when fourth setting data is input to the state setting register during the display OFF state, and the state setting circuit effects transition from the display ON state to the display OFF state, then effects transition from the display OFF state to the sleep state when the fourth setting data are input to the state setting register during the display ON state, **column 16 lines 60-67, column 17 lines 1-30.**

### **Conclusion**

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. **2003/0025689, 6369784, 5434589, EP502744A2.**
3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **David L. Lewis** whose telephone number is **(571) 272-7673**. The examiner can normally be reached on MTWTHF from 8 to 5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached on **(571) 272-7681**. Any inquiry of a general nature or relating to the status of this application or

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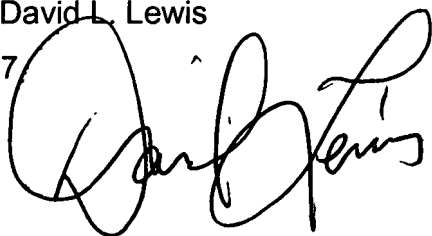
proceeding should be directed to the Group receptionist whose telephone number is (571)-273-8300.

4. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Examiner: David L. Lewis

July 9, 2007

A handwritten signature in black ink, appearing to read "David L. Lewis", written over the printed name and date.